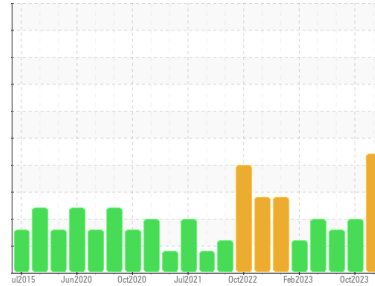
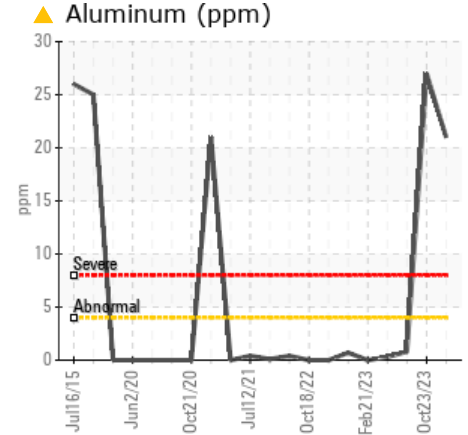
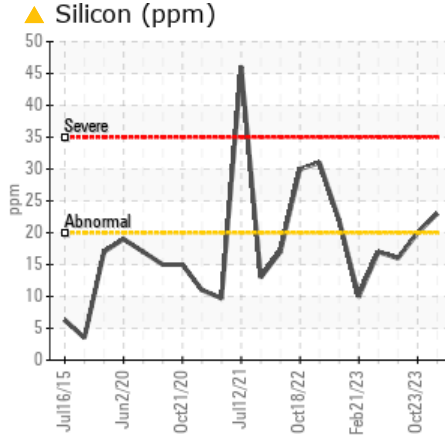
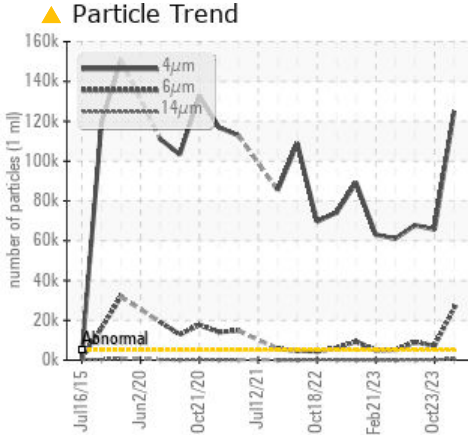


Machine Id
QL6 LEVELER LUBE OIL SYSTEM
Component
Hydraulic System
Fluid
TRIBOL GEAROIL 1100/320 (1500 GAL)



COMPONENT CONDITION SUMMARY



RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor. Due to an abnormal test result it is recommended to contact Stauff Corp at (201)-444-7800 for help resolving the issue.

PROBLEMATIC TEST RESULTS

| Sample Status | | | | ABNORMAL | ABNORMAL | ABNORMAL |
|-----------------|-----|--------------|-----------|-------------------|------------|------------|
| Aluminum | ppm | ASTM D5185m | >4 | ▲ 21 | ▲ 27 | <1 |
| Silicon | ppm | ASTM D5185m | >20 | ▲ 23 | 20 | 16 |
| Particles >4µm | | ASTM D7647 | >5000 | ▲ 125074 | ▲ 65588 | ▲ 67807 |
| Particles >6µm | | ASTM D7647 | >1300 | ▲ 26156 | ▲ 7178 | ▲ 8983 |
| Particles >14µm | | ASTM D7647 | >160 | ▲ 589 | 112 | ▲ 215 |
| Particles >21µm | | ASTM D7647 | >40 | ▲ 116 | 24 | 32 |
| Oil Cleanliness | | ISO 4406 (c) | >19/17/14 | ▲ 24/22/16 | ▲ 23/20/14 | ▲ 23/20/15 |

Customer Id: IPSAXI
Sample No.: ST43806
Lab Number: 06009085
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldrige +1
don.b505@comcast.net

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

| Action | Status | Date | Done By | Description |
|------------------|--------|------|---------|---|
| Change Filter | --- | --- | ? | We recommend you service the filters on this component. |
| Contact Required | --- | --- | ? | Due to an abnormal test result it is recommended to contact Stauff Corp at (201)-444-7800 for help resolving the issue. |

HISTORICAL DIAGNOSIS

23 Oct 2023 Diag: Don Baldrige

WEAR



We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor. Due to an abnormal test result it is recommended to contact Stauff Corp at (201)-444-7800 for help resolving the issue. The aluminum level is abnormal. All other component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



11 Sep 2023 Diag: Doug Bogart

ISO



We recommend you service the filters on this component. Resample at the next service interval to monitor. Due to an abnormal test result it is recommended to contact Stauff Corp at (201)-444-7800 for help resolving the issue. All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



19 May 2023 Diag: Wes Davis

ISO

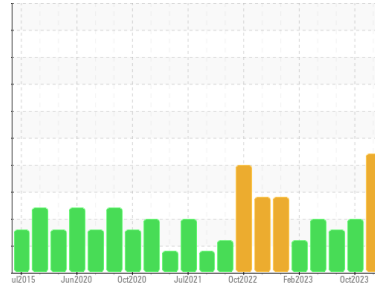


Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation. All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The water content is negligible. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

view report



Machine Id
QL6 LEVELER LUBE OIL SYSTEM
 Component
Hydraulic System
 Fluid
TRIBOL GEAROIL 1100/320 (1500 GAL)



DIAGNOSIS

- Recommendation**
We recommend you service the filters on this component. Resample at the next service interval to monitor. Due to an abnormal test result it is recommended to contact Stauff Corp at (201)-444-7800 for help resolving the issue.
- Wear**
The aluminum level is abnormal.
- Contamination**
There is a high amount of particulates present in the oil. Elemental level of silicon (Si) above normal.
- Fluid Condition**
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

| method | limit/base | current | history1 | history2 |
|---------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | ST43806 | ST43873 | ST43874 |
| Sample Date | Client Info | 13 Nov 2023 | 23 Oct 2023 | 11 Sep 2023 |
| Machine Age | mths | Client Info | 0 | 0 |
| Oil Age | mths | Client Info | 0 | 0 |
| Oil Changed | Client Info | N/A | N/A | N/A |
| Sample Status | | ABNORMAL | ABNORMAL | ABNORMAL |

WEAR METALS

| method | limit/base | current | history1 | history2 | |
|----------|------------|-----------------|-------------|----------|----|
| Iron | ppm | ASTM D5185m >40 | <1 | <1 | 0 |
| Chromium | ppm | ASTM D5185m >4 | 0 | <1 | <1 |
| Nickel | ppm | ASTM D5185m >20 | 0 | 0 | <1 |
| Titanium | ppm | ASTM D5185m | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m >4 | ▲ 21 | ▲ 27 | <1 |
| Lead | ppm | ASTM D5185m >10 | 0 | 0 | <1 |
| Copper | ppm | ASTM D5185m >60 | <1 | <1 | <1 |
| Tin | ppm | ASTM D5185m >4 | 0 | 0 | <1 |
| Vanadium | ppm | ASTM D5185m | 0 | 0 | <1 |
| Cadmium | ppm | ASTM D5185m | <1 | <1 | 0 |

ADDITIVES

| method | limit/base | current | history1 | history2 | |
|------------|------------|-------------|-------------|----------|------|
| Boron | ppm | ASTM D5185m | 0 | 0 | 53 |
| Barium | ppm | ASTM D5185m | 14 | 12 | 4 |
| Molybdenum | ppm | ASTM D5185m | 2189 | 2120 | 1961 |
| Manganese | ppm | ASTM D5185m | 0 | 0 | <1 |
| Magnesium | ppm | ASTM D5185m | 0 | 0 | 1 |
| Calcium | ppm | ASTM D5185m | 81 | 89 | 97 |
| Phosphorus | ppm | ASTM D5185m | 3358 | 2881 | 3226 |
| Zinc | ppm | ASTM D5185m | 1137 | 1104 | 1133 |
| Sulfur | ppm | ASTM D5185m | 6187 | 5698 | 6674 |

CONTAMINANTS

| method | limit/base | current | history1 | history2 | |
|-----------|------------|------------------|--------------|----------|-------|
| Silicon | ppm | ASTM D5185m >20 | ▲ 23 | 20 | 16 |
| Sodium | ppm | ASTM D5185m | 0 | 0 | 0 |
| Potassium | ppm | ASTM D5185m >20 | 2 | 2 | 0 |
| Water | % | ASTM D6304 >0.05 | 0.013 | 0.014 | 0.003 |
| ppm Water | ppm | ASTM D6304 >500 | 133.8 | 146.3 | 34.0 |

FLUID CLEANLINESS

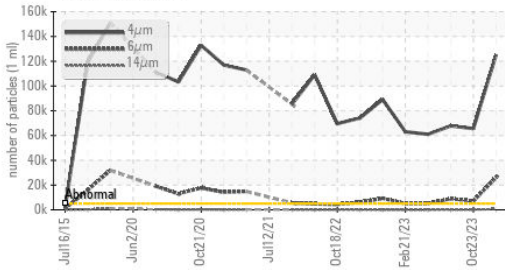
| method | limit/base | current | history1 | history2 |
|-----------------|------------------------|-------------------|------------|------------|
| Particles >4µm | ASTM D7647 >5000 | ▲ 125074 | ▲ 65588 | ▲ 67807 |
| Particles >6µm | ASTM D7647 >1300 | ▲ 26156 | ▲ 7178 | ▲ 8983 |
| Particles >14µm | ASTM D7647 >160 | ▲ 589 | 112 | ▲ 215 |
| Particles >21µm | ASTM D7647 >40 | ▲ 116 | 24 | 32 |
| Particles >38µm | ASTM D7647 >10 | 2 | 1 | 0 |
| Particles >71µm | ASTM D7647 >3 | 0 | 0 | 0 |
| Oil Cleanliness | ISO 4406 (c) >19/17/14 | ▲ 24/22/16 | ▲ 23/20/14 | ▲ 23/20/15 |

FLUID DEGRADATION

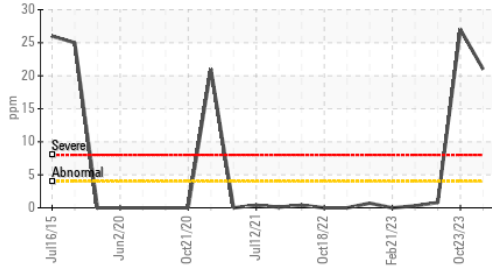
| method | limit/base | current | history1 | history2 | |
|------------------|------------|------------|-------------|----------|------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 3.64 | 3.86 | 3.75 |

OIL ANALYSIS REPORT

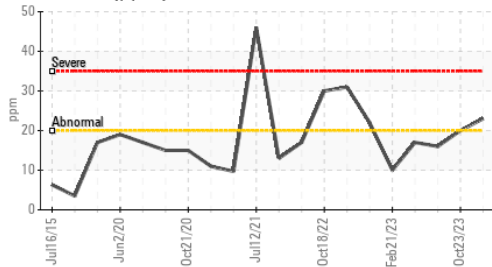
▲ Particle Trend



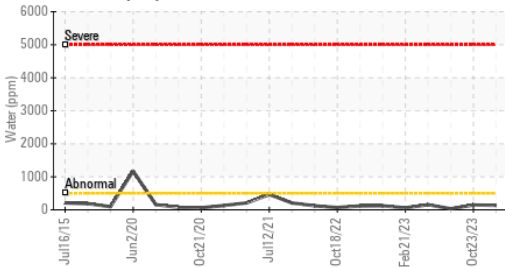
▲ Aluminum (ppm)



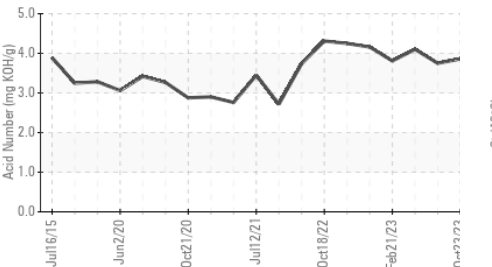
▲ Silicon (ppm)



Water (KF)



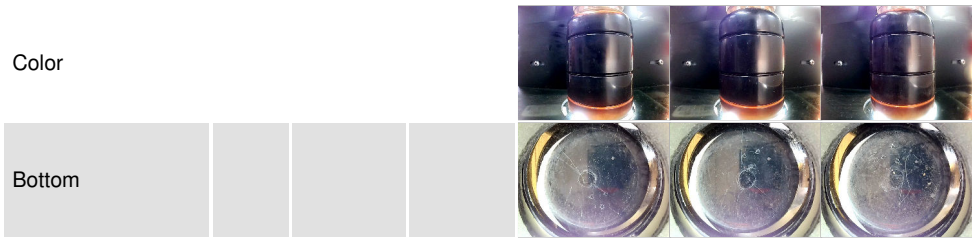
Acid Number



| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | NONE |
| Silt | scalar | *Visual | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | NONE | NONE |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE |
| Appearance | scalar | *Visual | NORML | NORML | NORML |
| Odor | scalar | *Visual | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.05 | NEG | NEG |
| Free Water | scalar | *Visual | | NEG | NEG |

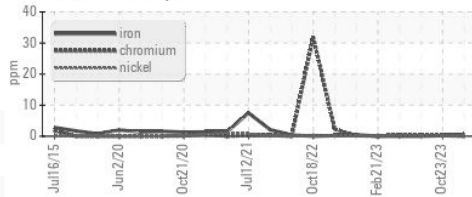
| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|---------------|---------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 320 | 297 | 296 | 296 |

| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---------------|--------|------------|---------|----------|----------|
|---------------|--------|------------|---------|----------|----------|

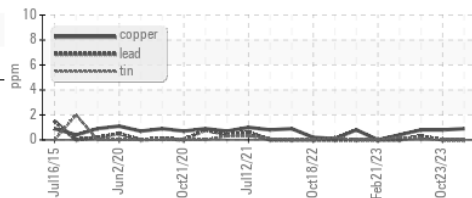


GRAPHS

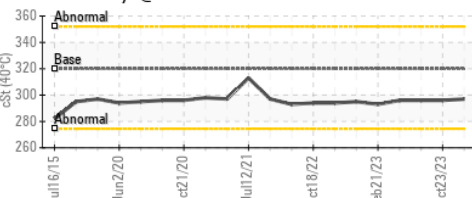
Ferrous Alloys



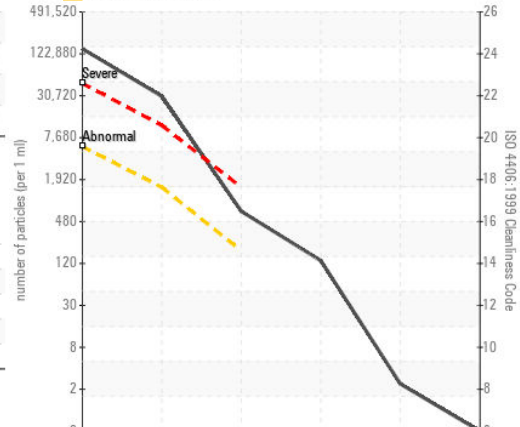
Non-ferrous Metals



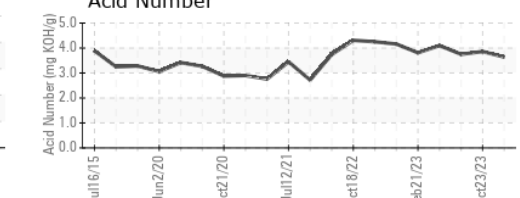
Viscosity @ 40°C



▲ Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ST43806 **Received** : 15 Nov 2023
Lab Number : 06009085 **Diagnosed** : 19 Nov 2023
Unique Number : 10742847 **Diagnostician** : Don Baldrige
Test Package : IND 2 (Additional Tests: KF)

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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